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And The Winner Is...

NJAAP Earns Outstanding Chapter Award

New Jersey Pediatrics is the Official Journal of the New Jersey Chapter, American Academy of Pediatrics
New Jersey Pediatrics

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American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN
New Jersey Chapter
At last month’s Academy Awards ceremony, Warren Beatty and Faye Dunaway were tasked with announcing the winner of the Best Picture Award, and as we now know, the wrong envelope was handed to them and the incorrect movie was announced.

At the Annual Leadership Forum (ALF), which was held during the weekend of March 9–12 in Schaumburg, Illinois, the correct envelope was handed to Martha Cronin Middlemist, MD FAAP and New Jersey was pronounced the Outstanding Very Large Chapter. This was amazing and wonderful news for the Chapter’s staff, leadership and supporters.

The political climate is changing and on November 8th, 2016, Donald Trump became the 45th President of the United States and now the healthcare climate is changing.

One of President Trump’s big rallying cries throughout his campaign was ridding the country of “Obamacare”, and the new president continues to pursue that objective. On March 6, House Republicans released legislation to repeal and replace the Affordable Care Act (ACA) with its American Health Care Act (AHCA). The new bill attempted to change how healthcare is financed for people who do not have insurance through their employer, and would delete the mandate requiring all Americans to carry health insurance. There is much political division on the merits and impact of the AHCA and the new President remains active trying to encourage his party to support his call for change.

What the AHCA doesn’t change is:

• Dependent coverage to age 26
• Ban on pre-existing conditions exclusions
• Ban on lifetime and annual limits
• Caps on out-of-pocket costs
• Required coverage of essential health benefits (including pediatric services with dental and vision)
• Preventive services coverage with no-cost sharing (Bright Futures, vaccines, etc)

On February 27–28, 2017, I attended the American Academy of Pediatrics Advocacy “Fly-In” along with other chapter leaders in Washington D.C. where we were we briefed on the AAP’s current federal child health policies. Afterwards, I met with federal legislators and their staff.

We were charged with delivering the “Blueprint for Children: How the Next President Can Build a Foundation for a Healthy Future”, https://www.aap.org/en-us/Documents/BluePrintForChildren.pdf.

This plan lays out policy recommendations related to promoting healthy children, supporting secure families, building strong communities and ensuring that the U.S. is a leading nation for children.

I met with the Healthcare Legislative Aides from the offices of Senators Booker and Menendez as well as my Representative Josh Gottheimer, and delivered the “BluePrint for Children” as well as a ‘prescription’ for healthcare issues.

As far as state news, on January 17th, Governor Chris Christie signed Executive Order No. 219, declaring the abuse of and addiction to opioid drugs: “a New Jersey public health crisis”.

Then on February 6th, Governor Christie signed into law, legislation (S2156), which significantly impacted the current consent procedures for health care professionals who prescribe opioid drugs to patients under the age of 18. The law requires prescribers to provide additional warnings to the parents or guardians of unemancipated minor patients about the risks of developing an addiction or overdose to opioid drugs. The prescriber is also required to obtain written acknowledgement that the conversation occurred and place the acknowledgement in the patient’s record. Under the law, a practitioner is not permitted to issue an initial prescription for an opioid drug in quantity exceeding a five-day supply for treatment of acute pain.

As mentioned previously, I just returned from the ALF. Noteworthy points of that meeting included:

• chapter leaders drew upon multiple areas of expertise within the Academy to advise and make recommendations to the Board of Directors
• greater communication and networking among the leaders of chapters, committees, councils and sections were promoted
• development of the annual list of the “top ten” resolutions that guide leadership focus over the next year

Active conversations and talks regarding the plight of immigrant families were highlighted. This made for a highly emotional weekend with many of us referencing personal stories.

In closing, I want to invite all of you to come and visit us at our new home in East Windsor. The location is easily accessed from all points, the environs are comfortable and the space includes a learning center that seats over 100 people, making it ideal for the hosting of various educational meetings through our learning center.

Once again, I want to applaud our amazing staff, especially our Executive Director, Fran Gallagher on having received the OCA(Outstanding Chapter Award). Please reach out and congratulate the outstanding staff we call our own.

Enjoy the Spring and get engaged and stay involved.
Executive Director’s Column

Congratulations! Our Chapter was selected by AAP as the 2017 Outstanding Chapter Award recipient, Very Large Chapter. This award acknowledges a collective commitment to excellence by Chapter Leadership, Members, Staff, and Supporters. This spirit to excel was demonstrated throughout the year in virtually every aspect of our work from advocating for children and the pediatric medical home, helping advance and expand the Mental Health Pediatric Psychiatry Collaborative, providing leadership to the HPV Hub & Spoke for District III, elevating pediatric awareness and education on Human Trafficking, and numerous other critically important programs underscored in the Chapter’s Agenda for Children. Visit http://njaap.org/membership/agenda-for-children/ to learn more.

NJAAP Government Affairs and Practice Management Committees are already focused on addressing the serious challenges brought on by the American Health Care Act (AHCA). Studies confirm that children with Medicaid: miss fewer days of school, do better in school, are more likely to graduate from high school and attend college, grow into healthier adults, earn higher wages and pay more in taxes. The “Repeal and Replace” effort underway is a giant step backwards and pose serious implications. The conversion of Medicaid from an entitlement to a capped funding stream will result in cuts to enrollment, benefits (jeopardizing EPSDT), physician payment and puts millions in jeopardy of losing their health care insurance. Both committees are hard at work building a strong united voice on behalf of all children with a strong and united voice. What ideas do you have to help make this happen? You are invited to join us and share your thoughts.

And speaking of joining us, we have conferences and events coming up that you will want to attend. ALD to Zika Conference is on April 25th; Resident Career Day is April 26th; Annual Meeting is May 24th—Restocking Your Toolkit. This year’s meeting features a line-up of National and International speakers and represent an opportunity to connect with colleagues and explore ways to get involved. Visit http://njaap.org/events/ to learn more and register.

Looking for some fun? The Annual Children’s Ball, April 19th at The Palace in Somerset County. Come and enjoy time with friends and colleagues and help raise funds for the work ahead. Enjoy the Cocktail Hour, the gourmet food stations and a brief award ceremony over desert. Inside this issue is a companion fund raising letter. For some who may not be attending the Gala, this is an opportunity to offer your support. I’m proud to share that our 2015 Audit reported that $.92 cents of every dollar raised went directly towards our mission.

Join us this year as we celebrate our status as an Outstanding Chapter Awardee. The challenges are great, but along with your help, we roll up our sleeves and employ outstanding strategies to meet them head on and remain a strong voice for children in New Jersey.

Thank you for being a member!

Fran Gallagher, MEd Executive Director, NJAAP
Collaborative primary care child psychiatry model endeavors to expand state wide

A majority of studies show that as many as 25% of children have mental health issues that are serious enough to affect their daily function. When combined, anxiety, depression, behavioral disorders, ADHD, substance abuse, eating disorders and trauma effects render these disorders to the number one chronic problem in children of all ages.

For two years, NJAAP has been working with primary care pediatricians in eleven counties throughout Southern and Central NJ in support of their efforts to ensure patients with mental health concerns get the care they need and deserve. Funding for the Pediatric Psychiatry Collaborative (PPC) first arose from the state legislature and is managed by the Department of Children and Families (DCF).

The focus of the PPC process is to encourage primary care pediatricians to use evidence-based tools to regularly screen for mental health concerns as part of well child care. Thus far, in the first two years of the project, over 39,000 screens have been completed.

Any child, who screens positive or who presents with a mental health concern, is connected to a care management HUB in that region. The HUB consists of social workers and psychologists, who talk with caregivers and then match the child's needs to local resources, taking into account insurance status, travel distance and other factors. The HUB tracks the patient to ensure the connection to appropriate services was made and also assesses if the child is actually improving over time. The primary care office also serves in the role of the child's care manager.

Should the pediatrician need to discuss the child's case with a child psychiatrist, or if the child needs an immediate visit with a child psychiatrist to clarify any concerns, then those arrangements are coordinated quickly at the HUB and at no charge to the family. In addition, the Pediatric Psychiatry Collaborative offers participants ample opportunities for MOC learning collaboratives, regular webinars about specific mental health concerns and active evaluation to monitor progress.

The governor and the legislature have now earmarked enough funding to create 5 additional HUBS to cover the entire state. It will take 4 to 6 months to determine how each HUB is created and staffed, but the hope is this represents the foundation for a state wide system for collaborative behavioral healthcare where each HUB utilizing the same approaches for assessment, diagnosis and treatment.

Originating in Massachusetts 15 years ago, this model of collaborative care has spread to over 30 other states. While this model is not the answer to all of the mental health needs in New Jersey, it does provide for early identification and care management support and complements the Children System of Care that provides direct services for children in need.

The NJAAP has been a very active partner in PPC to date, serving in the roles of practice recruitment, training and mentoring for participating pediatricians. We hope to continue that partnership role as the project expands throughout the rest of the state.
Throughout 2016, the medical news was dominated by the invasion of the Zika virus in the Americas and its anticipated emergence in the United States. Zika virus presence was first known to virologists interested in obscure flaviviridae. It was initially identified in a rhesus monkey in Uganda in 1947 and subsequently in humans in Nigeria in 1953. It was thought to cause a self-limited illness in humans with rather mild morbidity, no significant sequelae and little to no mortality. Its geographic distribution appeared to be limited to a thin belt of sub-Saharan Africa and Asia until 2007 when there was an explosive outbreak in the State of Yap, Federated States of Micronesia where an estimated 75% of the population was infected.1 Over the following several years, it spread across the Pacific Islands and in 2015 made a dramatic entrance into Brazil, where millions of people were affected as it swept rapidly throughout South and Central America and the Caribbean. It was in Brazil, in September of 2015, that the association between maternal infection and congenital microcephaly was first noted and later confirmed.2,3 By February 1, 2016 the World Health Organization (WHO) declared the Zika pandemic a Public Health Emergency of International Concern.

Current Status

As of February 1, 2017, there have been 4,973 cases of Zika virus disease in the US reported to ArboNet, of which 4,752 (95.6%) are travel-associated cases and 220 (4.4%) are due to presumed local mosquito-borne transmission. This number includes only those cases meeting the probable or confirmed case definition, but does not include asymptomatic infections, unless the case is a pregnant woman with a complication of pregnancy. US local mosquito-borne transmission has been reported from two locales; Miami-Dade County, Florida (214 cases) and Brownsville, Texas (6 cases). Both of these areas are now designated Zika Yellow cautionary areas by the Centers for Disease Control and Prevention (CDC), which denotes geographic areas where local spread of Zika virus has been identified, but no current evidence of widespread, sustained local spread. Although the specific level of risk in yellow areas is unknown, there is still a risk to pregnant women.

New Jersey has reported 175 travel-associated cases (4%) to date. There have been 36,414 cases reported from the US Territories, of which 36,274 (99%) are due to presumed local mosquito-borne transmission, and of those, 35,197 (97%) have been reported from Puerto Rico.4 As of January 24, 2017, there have been 1,394 and 2,071 pregnant women with any laboratory evidence of possible Zika virus infection in the US (US Zika Pregnancy Registry) and US Territories (US Zika Pregnancy Registry and data from Puerto Rico reported to the Zika Active Pregnancy Surveillance System) respectively.5 Of those cases reported from the US, 999 women completed their pregnancies, (including those that ended in a live birth, miscarriage, stillbirth, or termination). Thirty-eight pregnancies resulted in a live-born infant with birth defects and 5 pregnancy-losses with birth defects.6

Transmission

Zika virus is a flavivirus closely related to other flaviviridae family members including those responsible for dengue, yellow fever, West Nile, Japanese encephalitis, and St. Louis encephalitis, among others. Primary infection is asymptomatic in up to 80% of those exposed, with the rest experiencing all or some combination of low grade fever, a pruritic maculopapular rash, conjunctivitis, arthralgia, myalgia, and headache lasting from several days to 1 week. The major mode of transmission is through the bite of the *Aedes* mosquito, most commonly *Aedes aegypti* with occasional reports of suspected transmission by *Aedes albopictus*. The true extent of the mosquito vectors is currently unknown as the virus has been isolated in many other species of mosquito though that alone is not an indictment. In addition, *Aedes albopictus* is responsible for the transmission of both dengue and chikungunya in many areas with confirmed mosquito-borne transmission of Zika virus. Disease caused by any of the three viruses can present with a similar clinical picture, though dengue and chikungunya are generally more severe. It is important that the clinician distinguish between these diagnoses as potential consequences can be serious. Other important modes of transmission include sexual transmission via vaginal, anal, or oral sexual activity including the use of sex toys. Sexual transmission has been documented from men to women, women to men, and men to men. Vertical transmission can occur from mother to fetus any time during pregnancy and while the most serious congenital consequences are thought to occur with infection during the first and early second trimester there is much that needs to be known about congenital infection and its consequences throughout gestation and beyond. Note that sexual and vertical transmission can take place whether an infected person is symptomatic or asymptomatic. While virus has been detected in breast milk, there has been no documented transmission of infection to newborns through breastfeeding, therefore, due to the benefits of breastfeeding, it is not contraindicated in women with Zika virus infection and encouraged in Zika endemic areas. Zika virus has been detected in blood donors and there have been multiple reports of suspected blood transfusion-associated transmission of infection from Brazil, however, there has been no blood transfusion transmission documented in the US. Due to the
high likelihood of blood transfusion associated transmission, the FDA has called for all blood collection centers in the US to screen all donated blood for Zika virus as of August 26, 2016. To date, there has been no reported transmission of Zika virus infection in healthcare settings in the US.

Guillain-Barré syndrome (GBS) was first associated with the Zika virus infection during the outbreak in French Polynesia, where 38 cases occurred among approximately 28,000 people seeking medical care. GBS is an acute immune-mediated polyneuropathy that is usually provoked by a preceding infection, in this case, Zika. The GBS clinical picture can range from a mild weakness causing some difficulties walking to almost complete paralysis of the extremities, face, and respiratory muscles. It usually is a self-limited condition that progresses over 2 weeks and by 4 weeks 90% have reached the nadir of the condition. GBS incidence increases approximately 20% with every 10 years of age beyond the first decade of life and occurs more commonly in men than women. As of February, 1 2017, there have been 13 cases of GBS among the 4,930 reported cases for a case incidence rate of 0.3%. Studies at both the CDC and the National Institutes of Health (NIH) are following affected maturing children and their mothers to better understand the full extent of this infection.

All infants and their mothers with documented Zika infection, regardless if they have symptoms, will be enrolled in the US Zika Pregnancy Registry by the NJDOH. All infants with birth defects consistent with congenital Zika virus infection should be reported to the NJDOH Birth Defects group at 609-292-5676. If there are any questions concerning prenatal diagnosis of congenital defects or prenatal management concerns please contact the NJDOH Reproductive and Perinatal Health Services at 609-292-5616.

**Zika virus infection is a Nationally Notifiable Condition and must be reported to the local or state public health authorities within 24 hours of contact.** Note: the local department of health to be notified is the agency with jurisdiction in the patient's place of residency. Contact information for local health departments in NJ can be found at www.localhealth.nj.gov. Approval for routine non-congenital Zika virus testing is obtained through the local health department. Consultation and evaluation for congenital infection in infants of mothers with documented or suspected Zika virus infection is obtained through the NJDOH Communicable Diseases Service at 609-826-5964.

**Diagnosing**

Diagnosis of Zika can be tricky and pediatricians are encouraged to consult with an infectious diseases specialist when making a diagnosis. History of potential exposure is critical and must include residence or travel to areas of active mosquito-borne Zika transmission or sexual exposure to an individual who either resides in or has traveled to such areas. Clinical diagnosis is unreliable as there is significant overlap in the clinical presentation of Zika with dengue and chikungunya, viral infections transmitted by the same vector in areas of endemic Zika infection. The use of NSAIDs in patients with suspected Zika are contraindicated until dengue has been ruled out due to potential hemorrhagic fever concerns. General laboratory findings are nonspecific; CBC with differential may demonstrate a mild lymphopenia and/or neutropenia with a mild to moderate thrombocytopenia and mild elevations in inflammatory markers (CRP, fibrinogen, ferritin), lactic dehydrogenase, and liver enzymes. Virologic studies are the most specific diagnostic tool available.

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Several real time reverse transcriptase polymerase chain reaction tests (rRT-PCR) are also available on the commercial market. Viremia is present in non-pregnant people generally <7 days from symptom onset and persists in pregnant women for a significantly longer period.10 Viruria can persist for longer duration than viremia with reports of virus detected in the urine up to 20 days after viremia became undetectable.11 rRT-PCR on saliva has been shown to increase the detection rate during the acute phase of the illness, but does not prolong the period of detection. Viable virus is found in semen and vaginal fluids and persists in both for a considerably longer duration than in blood, however, it apparently lasts in semen longer than in vaginal fluids. Neither semen nor vaginal fluid is routinely evaluated for diagnostic purposes. A Trioplex rRT-PCR designed to detect Zika virus, dengue virus, and chikungunya virus RNA has been authorized for use under an Emergency Use Authorization (EUA).12 The CDC recommends laboratory testing for congenital Zika virus infection in all infants born to mothers with laboratory evidence of infection during pregnancy and for infants presenting with clinical findings consistent with congenital Zika infection. For others, the CDC recommends sending serum and urine for rRT-PCR collected within 14 days of symptom onset. It is important to note that negative nuclear amplification studies do not rule out a diagnosis of Zika virus and requires serology evaluation. Serology studies are not available commercially and must be coordinated through the NJ DOH. Serologic evaluation is complicated by the cross-reactivity of Zika virus IgM and IgG with antibodies versus other flaviviruses, therefore, initial positive serology studies must be confirmed with a seroneutralization assay (e.g., plaque-reduction neutralization test). Cross-reactivity is also an issue with the confirmatory seroneutralization assays. Further complicating serologic evaluation is the phenomena known as original antigenic sin. This refers to the antibody response in people who have been previously exposed to another flavivirus (e.g., dengue, West Nile, etc.) either by natural infection or vaccination (yellow fever, Japanese encephalitis), where the response will be more vigorous to the previous flavivirus exposure than the current one, in this case Zika virus. This is especially problematic in areas where dengue and Zika are co-circulating.11 For a more detailed algorithm concerning the initial evaluation of an infant with possible congenital Zika virus infection please go to www.cdc.gov/zika/hc-providers/infants-children.html.

Management of an infant and child with congenital Zika virus infection with clinical abnormalities demands a multidisciplinary approach and should include ophthalmologists, neurologists, developmentists, and others depending on the clinical picture. And lastly, this care should be coordinated through an established medical home. Asymptomatic infants born to mothers with Zika virus infection during pregnancy require close follow-up and evaluation for significant sequelae that may develop as they mature. Currently, there are no curative medications for Zika virus infection, so care and management options focus on symptom relief and mitigation of the effects of clinical abnormalities. For a more detailed algorithm concerning the outpatient management of infants with possible congenital Zika virus infection please go to www.cdc.gov/zika/hc-providers/infants-children.html.

There is currently no vaccine to prevent Zika virus infection, however, intensive developmental research to produce effective vaccines as soon as possible is ongoing.13,14 Prevention of infection by avoidance of high risk behavior is the sole alternative at this time. Pregnant women and women trying to become pregnant should avoid areas of active mosquito-borne Zika virus transmission. The most current information on travel risks can be found at www.cdc.gov/zika on the Zika Travel Information site or the Pan American Health Organization (PAHO) website at www.paho.org.

Precaution Recommendations

If travel to impacted areas is unavoidable, then eluding mosquito bites is imperative. The Aedes mosquito, unlike most other mosquito species, is a daytime feeder. It is very aggressive, prefers human blood meals often and bites multiple people at a time. Aedes is often found inside homes, and can breed in the smallest quantities of standing water including bottle caps or flower pots. Wearing long sleeves and pants and using EPA-approved insect repellents on skin and clothes (follow the manufacturer’s instructions carefully) are strongly recommended. Other avoidance strategies include:

A new CDC travel text messaging service is available to the general public by texting PLAN to 855-255-5606.
• Draining all sources of stagnant water or using larvicide in larger pools of standing water,
• Using air conditioning (with closed windows and doors) when possible,
• Check and if necessary, repair all window and door screens, and
• Use of mosquito nets over beds.


Avoiding Sexual Transmission

Abstinence is the only reliable method for avoiding the sexual transmission of the Zika infection. Shy of abstinence, the following recommendations should be provided to families where one or both partners have traveled to or recently resided in an area with active mosquito-borne Zika transmission:

• Use barrier precautions correctly throughout all sexual activity while pregnant.
• If not pregnant, then abstain from sexual activity or use barrier precautions correctly throughout all sexual activity for at least 8 weeks if your partner is a woman, or if your partner is a man, at least 6 months following his/her departure from Zika-endemic areas.
• Halt all sexual activity from the start of any symptoms or diagnosis of Zika infection.

For more information on preventing the sexual transmission of Zika virus infection, please go to www.cdc.gov/zika/prevention/protect-yourself-during-sex.html. There does not appear to be a risk to the fetus in pregnant women who were infected and cleared Zika virus prior to becoming pregnant.

CAUTION

One must be extremely careful when gathering information from the internet due to the proliferation of unreliable sites peddling misleading and erroneous information. The CDC website (www.cdc.gov/zika) is a reliable source of the most updated information on all things Zika. Other credible and reliable sources of information include the CDC hotline (1-800-232-4636; TTY: 888-232-6348), the NJ Department of Health website (www.nj.gov/health/cd/zika) and a NJ 24/7 Zika Call Center (1-800-962-1253).

REFERENCES


CME Quiz on page 10
1. Approximately what percentage of people, infected with Zika virus (non-congenital), will develop acute clinical disease?
   a. <10%
   b. 20%
   c. 30%
   d. 40%
   e. >50%

2. Clinical symptoms of non-congenital Zika virus infection include which of the following (select all appropriate answers):
   a. Low-grade fever
   b. High-grade fever
   c. Painful vesicular rash
   d. Pruritic maculopapular rash
   e. Conjunctivitis

3. Zika virus has been shown to be transmitted through which of the following routes (select all appropriate answers):
   a. Breastfeeding
   b. Mosquito-borne
   c. Tick-borne
   d. Blood transfusion
   e. Sexual transmission

4. Zika virus has been detected in which of the following human bodily fluids or tissue (select all appropriate answers):
   a. Blood
   b. Urine
   c. Semen
   d. Vaginal fluid
   e. Fetal brain tissue

5. Which of the following statements would be considered most accurate with respect to Zika virus:
   a. Zika virus was initially identified in 1947 in a rhesus monkey in a forest in Brazil
   b. Zika virus has been known to cause moderate to severe disease in humans worldwide since 1953
   c. The association of Zika virus infection in pregnant women with congenital microcephaly was first noted in Brazil in 2015
   d. Mosquito-borne Zika virus is widespread throughout the southern US

6. A 14 year old young man who has returned from a vacation in Puerto Rico 1 week ago presents to your clinic with fever and complaining of a headache, and joint and muscle pain. When asked about mosquito bites he answered he had been bitten multiple times during his stay. Next steps should include:
   a. Obtain a rapid influenza antigen test, prescribe a 10 day course of amoxicillin and discharge home with telephone follow-up the next day.
   b. Recommend ibuprofen at 6 hour intervals for the pain complaints and discharge home with telephone follow-up in 2-3 days
   c. Discharge to home with a diagnosis of viral syndrome and no intervention at his time but office follow-up the next day.
   d. Recommend acetaminophen for pain relief, with low threshold for hospital admission. Contact the local health department of the patient’s residence and report the encounter immediately prior to discharge from your office.

7. The nursery at your local hospital has just called reporting the delivery of an infant to a mother who arrived from Honduras 2 weeks ago with no records of prenatal care from Honduras. She gives a history of a fairly uneventful pregnancy except for a febrile episode lasting about a week early in the pregnancy. The baby was delivered via a normal spontaneous vaginal delivery with good Apgars. Your initial exam finds a healthy-appearing full-term infant with growth parameters within normal for gestational age limits. Your next steps include:
   a. Zika virus is not of concern due to the normal infant exam.
   b. Obtain a full septic work-up and start a course of ampicillin and gentamicin until all cultures come back negative.
   c. Obtain testing for Zika virus infection on mother as soon as possible.
   d. Obtain an immediate head ultra-sound to evaluate the infant for any intracranial abnormalities.

Quiz continued on next page
8. An infant is born to a mother with documented Zika virus infection during pregnancy and while the infant does demonstrate evidence of In utero Zika virus infection there is no evidence of any congenital abnormalities. Which of the following statements would be considered most accurate:
   a. As Zika virus has the potential to affect neuronal cells at any stage of development it is important to follow this infant closely as he/she matures for any indication of neurological deficits that may develop.
   b. Routine well-child care is adequate for this infant as there are no congenital abnormalities appreciated during infancy.
   c. Live-attenuated vaccines are contraindicated in this child as they have a history of congenital infection and the immunologic consequences of Zika virus have not been elucidated.
   d. As Zika virus has the potential to affect neuronal cells at any stage of development anti-epilepsy medications should be initiated to prevent potential onset of a seizure disorder.

9. Which of the following clinical events has been associated with Zika virus infection during pregnancy (select all appropriate answers):
   a. Pregnancy loss
   b. Asymptomatic neonate
   c. Ocular abnormalities in the neonate
   d. Hearing deficits in the neonate
   e. Growth impairment

10. A family that has been part of your practice for years is considering a vacation in Brazil in the summer. They have concerns however about their 16 year-old daughter and possible consequences for future childbirth if exposed to Zika virus during their proposed visit. The most accurate advice you can provide is as follows:
   a. Don’t go! Way too risky.
   b. There doesn’t appear to be any evidence indicating any risks for future childbirth in women who have experienced Zika virus infection and cleared the infection prior to pregnancy.
   c. Have your daughter tested for Zika virus immediately on return from Brazil.
   d. Go to Brazil but only visit areas of high elevation where there are no mosquitos.

**CME Instructions**

Read the CME-designated article and answer the Spring 2017 issue, quiz questions above. Print your name and phone number and mail or fax this form within six months from the date of issue to: NJAAP CME Quiz, 50 Millstone Road, Building 200, Suite 130, East Windsor, NJ 08520 Fax: 609.842.0015

**NAME** ____________________________ **EMAIL** ____________________________ **PHONE** ____________________________

Submitter must answer **8 of the 10 questions correctly** to qualify for CME credit.

**Accreditation Statement:**

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Medical Society of New Jersey through the joint providership of Atlantic Health System and the American Academy of Pediatrics, New Jersey Chapter. Atlantic Health System designates this live activity for a maximum of 1.0 MA PRA Category 1 Credit(s). Physicians should claim only the credit commensurate with the extent of their participation in the activity. Atlantic Health System is accredited by the Medical Society of New Jersey to provide continuing medical education for physicians.
CME Activity

Screening for Food Insecurity in the Pediatric Primary

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Abstract

According to the Department of Agriculture, food insecurity (FI) describes a condition in which families are unable to obtain nutritionally adequate food due to constrained resources. A vast amount of literature delineates the impact of FI on children including learning difficulties, hyperactivity, aggression, anxiety, frequent hospitalizations and the development of chronic health conditions. In 2015, the American Academy of Pediatrics (AAP) urged pediatricians to screen for food insecurity and to be aware of resources to attenuate its effects. Our research study demonstrated that our pediatric providers, with little education on FI, were less likely to screen for it, with only 3% of providers who reported that they always screen. After implementation of a quick screening tool in our EMR and a mini-lecture series on FI, there was a statistically significant increase (from 3% to 31.4%, \( P < 0.01 \)) in providers who always screened for FI. Our results clearly suggest that simple quality improvement measures were enough to motivate and empower our pediatric providers to screen for FI.

Introduction

Food insecurity describes a condition in which families are unable to obtain nutritionally adequate food due to constrained resources.\(^7\) In 2015, 12.7 percent of United States’ households and 16.6 percent of households with children were food insecure at some point during the year.\(^7\) In fact, one out of five children living in the United States lack access to nutritious food.\(^2\) Food insecurity does not necessarily mean that families are food insecure all the time, but rather it represents the trade-offs between important basic needs that families must make. The Feeding America 2014 Executive Summary, a four-year comprehensive study outlining the demographics of people who receive food assistance through the Feeding America network, ascertained that 66% of American families receiving assistance had to choose between paying for food or paying for medicine and 57% had to choose between paying for food or for housing.\(^4\) Even small changes in family dynamics, such as a bread winner of the family being injured and out of work or suddenly deported, can instantly cause financial vulnerability and subsequently reduce a family’s ability to afford enough food.

Traditionally, it was thought that food insecurity only affected low-income, urban communities. However, research has demonstrated that food insecurity impacts children in many types of communities. In the United States, counties with high food-insecurity rates were more likely to be found in rural areas with a 53.7% FI rate as compared to metropolitan communities where the FI rate is lower, 22.2%.\(^10\) Additionally, research has shown that while FI is inversely related to income, it is not the same as poverty as there are a significant number of families with income levels above the federal poverty level who still identify as being FI.\(^9\) In 2014, 11.8% of New Jersey families were food insecure and 16.8% of children were struggling with hunger. The highest food insecurity rates in New Jersey, by county, were in Cape May (22.8%), Salem (21.0%), Cumberland (20.6%), and Atlantic (21.4%). In concordance with prior research, New Jersey counties with urban low-income communities had slightly lower FI rates: Camden County 17.8%, Essex County 18.6%, Hudson County 18.8%, and Middlesex County 14.3%.\(^11\)

Evidence increasingly suggests a link between early childhood malnutrition and chronic conditions such as obesity, diabetes, and cardiovascular disease, which all lead to increased mortality and poorer quality of life. The link between FI and obesity is complicated and reflects not only the quantity of readily available food, but also the quality. For young children, the literature demonstrates that food insecure children are at increased risk for learning difficulties, hyperactivity, and aggression\(^6\) and tend to report more frequent stomachaches and headaches.\(^2\) Additional studies have shown that food insecure adolescents have increased risk of psychosocial complaints such as depression, anxiety, and difficulty concentrating.\(^2\) Food insecurity has been “independently associated with: no usual source of care, postponed medical care, postponed medications, and not receiving the recommended well-child care visits”.\(^13\)

There are several federal nutritional programs that help combat food insecurity that pediatricians should be aware of. The Women, Infants, and Children (WIC) program was established in the early 1970s and provides healthy nutritious food to pregnant and breast feeding mothers and children up to their 5th birthday. Supplemental Nutritional Assistance Program (SNAP) is another program that provides nutritional assistance to low income families. Additional nutrition programs include the National School Lunch and National School Breakfast programs as well as the Summer Food Service Program.\(^1\)

continued on next page
The AAP published a policy statement in December 2015 in which they recommended that pediatricians “engage in efforts to mitigate food insecurity, be aware of resources that can attenuate the effects of food insecurity and know how to refer eligible families”.1 Given this recommendation, our study set forth to (i) improve identification of families who are food insecure using the Hunger Vital Signs12 screening tool; (ii) determine the proportion of pediatric providers who screen for food insecurity at the Eric B. Chandler Health Center (EBCHC), a federally-qualified health center (FQHC) in New Brunswick, NJ; (iii) identify the providers’ self-identified barriers to screening; (iv) address those barriers using educational seminars; and (v) assess the impact of the educational seminars on increasing pediatric provider screening rates, along with improving comfort level with screening.

Study Design and Methods

This project was approved by the Rutgers Institutional Review Board (IRB) as a quality improvement project. There were five phases enacted to complete the study objectives.

Phase 1: Selection of food insecurity screen

We used the 2-question Hunger Vital Signs, a highly sensitive and specific screening tool developed as a derivative of the 18-item US Household Food Security Scale12 to screen patients for food insecurity. Parent(s) were asked to respond to the following questions: (1) “Within the past 12 months, we worried whether our food would run out before we got money to buy more”, and (2) “Within the past 12 months, the food we bought just didn’t last and we didn’t have money to get more.” The Hunger Vital Signs screening tool was integrated into our EBCHC electronic medical record system in a section which addresses nutrition and other pediatric risk factors, e.g. domestic violence, access to firearms, and lead exposure.

Phase 2: Compilation of community resources

We created a nutrition resource guide in English and Spanish languages to provide to the families who screened positive for food insecurity using websites of the local food pantries (www.NJ211.org; www.feedingamerica.org) and telephone numbers and website addresses of the federal nutrition organizations (WIC and SNAP).

Phase 3: Baseline screening practices and self-identified barriers to screening

We distributed an online anonymous survey to 40 health care providers at the EBCHC, comprised of pediatric residents and pediatric and family medicine attending physicians. The survey was designed to assess (i) how often providers asked patients and families regarding their ability to afford enough food and (ii) reasoning for not screening for FI. Pediatric residents regardless of their continuity clinic location (EBCHS or Rutgers Medical Group (RMG) at Somerset) were also asked to indicate where their clinic is when completing the surveys.

Phase 4: Intervention

Over the course of 4 months, a series of seminars were implemented to address the educational objectives of increasing awareness of food insecurity amongst providers and to improve provider skill and comfort with approaching the questions with sensitivity in a way that families felt safe to ensure accurate responses. The responses to the baseline survey were used to develop educational seminars. The first three seminars were held during resident morning report. The final seminar was in the form of a statewide NJ AAP Advocacy Day—an annual event where pediatric residents from all 9 residency programs are invited to learn about a specific child health issue. The day included lectures on food insecurity and screening, panel discussions on hunger and its implications, and an introduction to community organizations that address food insecurity. The seminars discussed the impact FI has on child health and provided an overview of local community nutritional resources.

Phase 5: Assessment of impact of educational seminars on screening practices

Post-interventional survey of initially surveyed health care providers was conducted to identify the effectiveness of the educational seminars on practicing FI screening.

Statistical Analysis

We used Chi-square to compare health care providers’ practices and self-identified barriers for FI screening of their patients’ families prior to and after participation in educational seminars. “Statistica” 13.2 was used to analyze the data. P value of less than 0.05 was considered statistical significant.
Study Results

Thirty-four of the 40 providers, mainly residents (82.4%) completed the pre-intervention Likert-scale questionnaire. As shown in Figure 1, the majority of them reported FI screening “sometimes” or “not often,” and only 14.7% stated that they “never” screened their patients’ families for FI. When we asked to indicate the reasons “not to screen,” the majority indicated that they “do not know what to do with obtained information” and 33% stated they were “not comfortable asking such a sensitive topic” or “other” reasons, including “not thinking to ask”, “not having enough time” and “not knowing how to ask” (Figure 2). The result of post-educational survey showed a significant increase in the number of providers who were always screening for FI (Figure 3). Comparison of pre- to post-interventional responses regarding the self-identified reasons not to screen families for FI shows significant reduction in number of physicians who answered that they “do not know what to do with obtained information” (Figure 4). Moreover, substantial number of physicians identified “other” reasons not to screen for FI after participation in educational program. Not having enough time to screen was indicated as the most common other reason for not screening for FI. We also found that whereas prior to the educational seminars, providers felt that their patients were not at risk for FI, after the educational seminars, providers felt the questions were important and planned to incorporate them in their daily encounters.

Summary

We created and implemented a screening program to address food insecurity at the pediatric clinical setting for underserved population in order not only to identify their needs but also to provide families with useful information on nutritional supplementation. The educational seminars targeted the pediatric healthcare providers’ understanding regarding importance for screening their patients on FI. In addition, we were able to identify providers’ barriers for FI screening of their patients’ families. Our results demonstrated both major increase in screening of patients’ families for FI at the clinical pediatric setting and pediatricians’ understanding regarding importance of FI screening after participation in the educational seminars. Although participation in educational seminars lead to a nearly three-fold increased screening for FI, pediatricians reported not enough time during clinical evaluation as one of the barriers. The positive outcome of educational seminars was a five-fold decrease in the number of providers who reported not knowing what to do with FI screening results. We believe that the integration of FI screening into the EMR system actually improved

Figure 1: Baseline screening practices of health care providers for FI

Figure 2: The reasons not to screen for FI indicated by the health care providers
the physician’s compliance with FI screening. We believe that a FI program should not only include screening by the pediatrician, but also development of a comprehensive nutritional program with participation of a nutritionist and social workers. Further programs will be developed to improve sufficiency of screening process in addition to refreshing providers’ knowledge on FI and follow-up with utilization of recommended food supplementation resources by the families. There will be need for reinforcement of educational sessions in order to increase compliance and sustain FI screening at our pediatric setting.

References

NJAAP’S SEVENTH ANNUAL
New Jersey Children’s Ball SPOTLIGHT ON CHILDREN

This year’s celebration spotlights four honorees whose care, support and advocacy have made a genuine difference in the lives of children and families in New Jersey.

All proceeds benefit NJAAP programs that improve the health, safety, and well-being of all children across the state. 92¢ of every dollar you contribute goes directly to supporting children by working with the adults in their lives. NJAAP will dedicate $10,000 of funding to our Human Trafficking efforts.

PEDIATRICIAN OF THE YEAR
Elliot Rubin, MD, FAAP
University Pediatrics

CHAMPION FOR CHILDREN
The Honorable Arturo Brito, MD, MPH

YOUTH ACHIEVEMENT AWARDS
Anirudh Muralidharan & Boys & Girls Club of Clifton

Wednesday, April 19, 2017 @ 6:30 PM - The Palace at Somerset Park ~ Somerset, NJ

CME Quiz on page 19

We Can Help You with Your Continuing Education

CME and MOC Opportunities

**MEETINGS / CONFERENCES**

<table>
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| ☐ Annual Conference & Exhibition  
May 24, 2017  
The Palace, Somerset, NJ | ☐ School Health Conference  
October 18, 2017  
The Palace, Somerset, NJ |
| ☐ From ALD to Zika: Newborn Screening and Surveillance  
April 25, 2017  
The National Conference Center, East Windsor, NJ |

**WEBINARS**

| ARCHIVED WEBINARS / ENDURING MATERIALS |

| ☐ Fetal Alcohol Syndrome: Identification, Treatment and Clinical & Behavioral Management  
3 Part Webinar Series (CME / CNE / Social Work approved webinar series.) | ☐ Identification and Management: Lead Poisoning and Asthma Care  
CME approved webinar available on NJAAP website as enduring material. Visit njAAP.org access the webinar (free) |
| ☐ Suspected Child Abuse and Neglect Program  
CME / CNE / CE approved training programs available for PCPs, Emergency Departments and EMS providers to increase recognition of child abuse and neglect and encourage appropriate reports to CPP. (free) For more information, contact can@njaap.org for more information | ☐ Integrating Infant Oral Health & Perinatal Oral Health into Routine Well Care  
CME / CNE approved office based training to Integrate oral health into routine well care visits (Includes: oral health risk assessment, fluoride varnish application, payment process to Managed care organizations and list of participating Dental providers in your county) (free) For more information, contact oralhealth@njaap.org. |

**CME QUALITY IMPROVEMENT PROGRAMS & RESOURCES**

| ☐ Strengthening Pediatric Partners  
Quality Improvement program to address and reduce risk factors for child abuse and neglect; Participants will receive 25 MOC Part 4 credits. For more information, contact can@njaap.org |
| ☐ Good4Growth (G4G) – Part 2  
G4G is designed to show the connection between early life-adverse events, toxic stress and social-emotional skills in terms of health, mental health, academic achievement and economic outcomes; 20 credits towards ABP MOC Part 2. |

**MOC QUALITY IMPROVEMENT PROGRAMS**

Annual Meeting 2017: MOC Part 2 – Mental Health Care Coordination  
MOC Part 2– Food Insecurity

**PEDIATRIC PSYCHIATRY COLLABORATIVE**

| ☐ Attention Pediatric Providers in: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Middlesex, Monmouth, Ocean & Salem Counties  
The Pediatric Psychiatry Collaborative is available at hospital-based hubs in your area. To learn more about the collaborative that provides pediatric providers with quick access to psychiatric consultation and referrals to mental/behavioral healthcare, contact mhc@njaap.org. |

Visit [www.NJAAP.org](http://www.NJAAP.org) often to learn about additional educational opportunities!  
For more information call 609-842-0014 or email njchapter@njaap.org
As children’s vaccines become increasingly expensive—and immunization programs more complex—the Vaccines for Children (“VFC”) Program is experiencing an increase in fraud and abuse. In New Jersey, the CDC’s VFC Program is administered by the New Jersey Department of Health (“NJ DOH”), which is responsible for, among other things, investigating cases of fraud and abuse.

The concept of fraud is more straightforward than abuse. Fraud is an intentional deception or misrepresentation made by a provider with the knowledge that the deception could result in some unauthorized benefit to the provider or practice. It includes any act that constitutes fraud under applicable federal or state law.

Abuse is a more general concept that is defined as:

- provider practices that are inconsistent with sound fiscal, business, or medical practices and result in an unnecessary cost to the Medicaid program, a health insurance company, or a patient;
- or in reimbursement for services that are not medically necessary or that fail to meet professionally recognized standards for health care. It also includes recipient practices that result in unnecessary cost to the Medicaid program.

In an effort to curb fraud and abuse in New Jersey, the NJ DOH has been conducting more frequent unannounced on-site inspections. NJ DOH inspections focus on strict compliance with CDC guidelines set forth in the VFC Operations Guide, including, but not limited to:

1. Proper Storage of Vaccines, including log of thermostat readings, location of vaccines within the refrigerator, etc.
2. Entry of Vaccines into NJIIS/NJMODS Databases
3. Documentation of Vaccine Lot Numbers on EMR
4. Proper Usage and Disposal of Multi-Dose Vaccines
5. Proper Training of Staff
6. Proper Documentation of Emergent Use of VFC Vaccines for non-VFC Patients

Many times the NJ DOH will find some issues that, if minor, merely result in the practice receiving a letter outlining a Restitution Plan, which translates to repayment of vaccines unaccounted for on a dose-for-dose basis.

It should be noted that the failure to comply with a Restitution Plan typically results in the provider being removed from the VFC program and referrals to the New Jersey Medicaid Fraud Division (“MFD”) and New Jersey State Board of Medical Examiners (“Board”). Once the matter is referred to the MFD and the Board, the provider is left to fight a war on two fronts. On one front, the provider must defend against accusations of fraud and abuse that could lead to criminal prosecution. On the other front, the provider will be called before the Board to defend their practice, respond to the NJ DOH’s findings and avoid any potential license suspension.

With the NJ DOH’s increased focus on fraud and abuse in the VFC program, pediatricians must carefully review their office policies and protocols to ensure that all staff and physicians of the practice are properly trained and comply with all VFC program requirements or face potential monetary penalties, licensure actions or criminal prosecution.

Reference
1. Which of the following describes a condition in which a person is unable to obtain nutritionally adequate food due to constrained resources?
   A. Undernutrition
   B. Hunger
   C. Food insecurity
   D. Malnutrition

2. Food insecurity describes only families who live in urban, underserved populations.
   A. True
   B. False

3. One in five children in the United States lack adequate access to nutritious food.
   A. True
   B. False

4. Which of the following conditions are associated with food insecurity?
   A. Hyperactivity
   B. Learning difficulties
   C. Depression
   D. Insomnia
   E. All of the above
   F. None of the above

5. Which of the following are not assessed using the Hunger Vital Signs™ screen?
   A. Within the past 12 months, we had to cut the size of meals or skip meals because there wasn’t enough money for food.
   B. Within the past 12 months, we worried whether our food would run out before we got money to buy more.
   C. Within the past 12 months, the food we bought just didn’t last and we didn’t have money to get more.
   D. Other

6. Which of the following reasons for not screening for food insecurity was most commonly provided by participants prior to completing the educational seminars?
   A. I am not comfortable asking such a sensitive question
   B. I don’t know what to do with the information
   C. My patient is overweight, he/she cannot be food insecure
   D. I do not think asking this question will help my patient’s health
   E. Other

7. As of 2014, approximately what percentage of American families receiving assistance had to choose between paying for food or paying for medicine?
   A. 66%
   B. 39%
   C. 57%
   D. 44%

8. It is recommended that pediatric health care providers:
   A. Screen all patients <6 years of age for food insecurity
   B. Screen all patients for food insecurity in communities where the prevalence of food insecurity is expected to be high
   C. Screen all patients for food insecurity, regardless of expected prevalence in their community
   D. Screen all patients for food insecurity when prompted by clinical presentation of related symptoms

9. Children from food insecure households are less likely to receive recommended well-child care visits as compared to children from food secure households.
   A. True
   B. False

10. As of 2014, which New Jersey county had the highest rate of food insecurity?
    A. Salem
    B. Essex
    C. Cape May
    D. Cumberland

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CME Instructions

Read the CME-designated article and answer the Spring 2017 issue, quiz questions above. Print your name and phone number and mail or fax this form within six months from the date of issue to: NJAAP CME Quiz, 50 Millstone Road, Building 200, Suite 130, East Windsor, NJ 08520 Fax: 609-842-0015

NAME ___________________________ PHONE ___________________________

EMAIL __________________________________________

Submitter must answer 8 of the 10 questions correctly to qualify for CME credit

Accreditation Statement:

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Medical Society of New Jersey through the joint providership of Atlantic Health System and the American Academy of Pediatrics, New Jersey Chapter. Atlantic Health System designates this live activity for a maximum of 1.0 MA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. Atlantic Health System is accredited by the Medical Society of New Jersey to provide continuing medical education for physicians.
Case Study: Gum Swelling, Rash, and Limp in an Autistic Child

Jan Fune MD
Jamie Pinto MD
Cathleen Ballance, MD, MPH, FAAP
Jersey Shore University Medical Center

Case History: An 11-year-old non-verbal male with autism presents to the emergency department with gum swelling, rash and limp. Two weeks prior to admission, he returned home from school and was noted to have a right sided limp. Exam at that time showed bilateral lower extremity bruising and petechial rash. In addition, he concurrently developed bleeding gums, which were noted when he brushed his teeth. In the week leading to his admission, the limp worsened and he refused to bear weight on his right leg. He was sent to the ED by his dentist due to a concern over a dental abscess or lesion causing gingival bleeding. Further history revealed that the patient had a very limited diet consisting mostly of water, peanut butter, and crackers. He was not taking a multivitamin or any other supplements. Review of systems was notably negative for fever, joint pain, trauma, weight loss, night sweats, and changes in hair texture. Family history was notable for Becker’s Muscular Dystrophy and negative for familial forms of anemia.

Physical Exam: temperature 97.7 F, blood pressure 101/64, respiratory rate 30, heart rate 136, and BMI 19 (75th percentile). He appeared awake and alert, but pale. He had pale conjunctiva, erythematous gingiva with active bleeding, poor dentition, and his right cheek was tender to touch. Skin showed multiple diffuse non-blanching perifollicular petechiae, bruising on the lower extremities, and nail pitting. Deep tendon reflexes, range of motion at the hip and knee, and strength were intact in all extremities, but he refused to bear full weight on his right leg. There was no point tenderness, joint swelling, warmth, erythema or edema. Differential diagnosis included leukemia, bleeding disorder, severe nutritional deficiency, non-accidental trauma, infectious cause, and myositis. CMP, CRP, and CPK were normal. His hemoglobin was 8.4, hematocrit was 26, platelets were 176, and INR was elevated at 1.48. Factor VII and X assays, and VWF activity were within normal limits. Iron was 32, TIBC was 214, and transferrin was 153, all of which were low; fecal occult blood test was within normal limits. Iron was 32, TIBC was 214, and transferrin was 153, all of which were low; fecal occult blood test was within normal limits. Iron was 32, TIBC was 214, and transferrin was 153, all of which were low; fecal occult blood test was within normal limits. Iron was 32, TIBC was 214, and transferrin was 153, all of which were low; fecal occult blood test was within normal limits. Iron was 32, TIBC was 214, and transferrin was 153, all of which were low; fecal occult blood test was within normal limits. Iron was 32, TIBC was 214, and transferrin was 153, all of which were low; fecal occult blood test was within normal limits.

The patient was started on a multivitamin, vitamin C, vitamin K, and iron while awaiting lab results. He was also started on nutritional supplementation with Boost Breeze. Within 48 hours of receiving nutritional supplementation, the patient’s gum bleeding, gingival swelling, and petechial rash resolved and he was more willing to bear weight on his affected leg. He was discharged home with close follow up with outpatient gastroenterology for feeding therapy and with dietary recommendations to be enforced at home and school. Prior to discharge, it was found that his vitamin C level on admission was undetectable, confirming the diagnosis of scurvy.

Discussion:

Scurvy, a disease not often seen in developed parts of the world, is caused by a prolonged deficiency of vitamin C. Its diagnosis can often be delayed due to its rarity compared to other nutritional deficiencies and its ability to mimic other disease processes.

Vitamin C, also known as ascorbic acid, is an essential nutrient because humans cannot synthesize it and it must be obtained through diet. It is an important cofactor in the synthesis of collagen, a connective tissue found in skin, teeth, blood vessels, cartilage, bones, ligaments, and tendons. It also acts as an antioxidant and aids in the absorption of iron. It is a water soluble vitamin and therefore, is not stored in the body. Recommended daily allowance of vitamin C is 45 mg daily. Serum ascorbic acid levels can become altered in approximately 41 days after vitamin C is removed from the diet. Children with autism or food aversions are at highest risk for vitamin C deficiency.
Pediatricians should be aware of scurvy because it may mimic other disease processes due to its varied presentation; the diagnosis can be easily made without a high index of suspicion. The uncommon diagnosis of scurvy can be made more expeditiously and simply, if it is kept on the clinicians “radar”, especially in high-risk populations including children with autism and developmental delays.

References:

**Make the Diagnosis**

**Case:** 4 yr old with painful boggy swelling of the scalp, oozing pus and areas of hair loss.

This is a case of

a. cellulitis of the scalp
b. kerion
c. lymphadenitis
da. alopecia areata

(answer on page 25)
Dental caries is the most common chronic disease of childhood, in fact 5 times more common than asthma. Caries, and its associated pain, is known to negatively impact a child’s quality of life, with consequences ranging from diminished concentration and falling grades to lost school time and erosion of self-esteem.

The good news is the condition is totally preventable, if addressed very early in life.

Caries is an infectious disease that is primarily transmitted vertically from mother or caregiver to a child during early infancy. The keys to protecting children from the burden of this disease is three-fold; early education to parents, preventive treatment interventions by pediatricians and, the integration of a dental home into the child’s overall care by one-year of age. Until recently, however, two misperceptions have prevailed, the notion that a child doesn't need to see a dentist until 3-years of age and that dental caries prevention and management is the sole responsibility of the dentist.

In NJ and around the country, pediatricians and other primary care providers are learning the importance of early childhood caries prevention and they are adopting effective prevention strategies that are supported by scientific literature. Most children are seen by their pediatrician at least 13 times within the first three years of life. Thus, pediatricians are ideally situated to make a huge impact on early childhood caries prevention through parental education on proper nutrition and care of their children's teeth. Additionally, pediatricians are increasingly providing the service of topical fluoride applications in their offices at health maintenance visits. This is a simple, quick procedure to perform and is a proven effective caries prevention strategy. Pediatricians can further ensure a comprehensive approach to their patients’ health and well-being by helping to link them to a dental home by age one.

Collaboration is Key

Collaboration between medical and dental professionals is key to the success of creating a cavity-free population of children. Linking the child's medical home to a dental home within the first year of life ensures a seamless merging of efforts towards this achievable goal.

The New Jersey Chapter, American Academy of Pediatrics (NJAAP) has been working with dental partners, including: NJ Oral Health Coalition members, New Jersey Dental Association, Dentaquest Foundation, Delta Dental Foundation of New Jersey, New Jersey Division of Medical Assistance and Health Services, Medicaid managed care entities and community organizations, over the past several years to help advance the common goal of a cavity-free childhood toward reality. More recently, private industry has joined the ranks of stakeholders, who are passionate about the fight against early childhood caries.

Henry Schein Inc. is a leading global distributor of health care products and services. The company is a major benefactor to the “Give Kids a Smile” program, which recently celebrated its 15th anniversary. Over the past 15 years, Give Kids a Smile has provided free dental services to over 5.5 million children through the work of volunteer dental professionals and others. In 2016, the Henry Schein company joined NJAAP, NJ Oral Health Coalition, NJDA, and the School of Dental Medicine to plan and support an expanded concept of medical-dental collaboration called “NJ Health Home 2.0.”

A plan of action was developed to fuse the relationship between primary care providers, dentists and parents to optimize children's health. This pilot program seeks to connect NJ families to a Health Home which includes a dental and medical home. Goals of the program include optimizing physical and oral health of children by improving access to care for all children, coordination of care between
health professionals and families and improving health outcomes through medical/dental collaboration. NJ Health Home 2.0 stresses interprofessional collaboration and a more expanded view of the overall health status of children including oral health. The NJ Health Home 2.0 initiative is expected to launch in 2017.

How Can NJ Pediatricians get involved?

Creating the healthiest, happiest children in the NJ is at the core of what we do as Pediatricians. Helping children optimize their health, largely through office-based prevention and education strategies, is most gratifying. Increased involvement of NJAAP is enabling pediatricians to move their professional advocacy outside the confines of their offices, which can also be very gratifying and fulfilling. The Academy always encourages pediatricians to become engaged and participate in Chapter activities and projects that serve to advance the health of all children in New Jersey. The more active we are in these activities, the more success we will have at improving children’s health. Involvement in the NJAAP Oral Health committee has invigorated my career as a pediatrician by providing me with ample opportunities to meet interesting, passionate people and to participate in new and exciting experiences, which I had never previously considered. It has been gratifying and rewarding both professionally and personally to be able to expand the scope of my career as a pediatrician.

As of January 2017, the American Board of Pediatrics (ABP) is providing enhanced options and ways for earning MOC Part 2 points. Here is a brief summary of what has changed:

- Only ACCME or State Medical Association accredited providers can provide MOC Part 2 points. Similarly to other NJAAP CME activities, our Part 2 programs are also provided through Atlantic Health.
- Every hour of CME for eligible activities will now also count for one hour of MOC Part 2 credit. (eg, a two hour CME activity will now provide two MOC Part 2 credits)
- Some current MOC Part 2 activities are grandfathered at the high point values until their expiration dates.
- Pediatricians can now earn MOC Part 2 points for activities beyond just the 25- or 50-question self-assessment method.
- All activities, including live activities, must include a comprehensive evaluation component that assesses learner knowledge and/or skill and provides feedback to the learner as part of the activity.
- Learner assessment methods must be relevant to the activity engaged in and include a justifiable passing standard, as determined by the provider.
- For enduring materials, journal-based CME, and live activities, the activity is peer-reviewed during the planning process by at least two reviewers who are not the author(s).
- ACCME and ABP have bridged their completion data systems so that physicians will not experience any delays in viewing credits earned in their ABP Diplomate portfolio.

Please contact the amazing staff at NJAAP to become more involved in the Children’s Oral Health initiative! They can be reached at 609.842.0014 or via email at oralhealth@njaap.org. For additional information on Health Home 2.0 visit, www.healthyteethnj.com.
During Springtime, residents in my program submit their elective requests. Typically, they pursue electives in the subspecialty they plan to enter after residency. Since I was not planning on a fellowship, I pondered my next step.

While in medical school, I was completing a pediatric elective in Australia where I met a woman from England. We shared a dual passion for medicine and travel and since she had completed more electives, I decided to ask for her advice. Her response: “TRAVEL!”

“Travel?” I asked. “Where?” She said “Do a pediatric elective in a resource limited country.” Then she started telling me mesmerizing stories about her elective experiences in South Africa and Sri Lanka, including the fun she had, all that she had learned, and how these rotations improved her clinical skills.

As I stared at the Dr. Seuss poster on my wall, which says: “Think left and think right and think low and think high, Oh the thinks you can think if only you try!” I decided to go for it. Fortunately, my program allows residents to spend their elective month abroad, so I contacted Red Cross Children’s Hospital in Cape Town, South Africa and sent the required paperwork. A few months later, I found myself by the stunning Table Mountain, heading for my first global pediatric elective.

Red Cross Children’s Hospital is the teaching hospital of the University of Cape Town and the largest pediatric tertiary referral hospital in South Africa. I spent one month in one of the inpatient departments, a rotation I enjoyed tremendously and which I feel will have a lasting impact on my career. A typical day starts at 8:00 a.m., when residents first see the overnight admissions in the “High Care” part of the ward designated for acutely ill children needing CPAP or inotropes. Afterwards, residents see patients with chronic problems in the ward. The vast range of pathology included common childhood problems like bronchiolitis and gastroenteritis, as well as more unusual diseases (at least to me!), such as active TB, severe acute malnutrition, meningitis & HIV-related infections. After rounds, residents see new admissions and, on some days, they have educational activities.

I was impressed by the extent to which residents managed the hospital. When attendings left the hospital, residents were responsible for managing the ward. They were not required to contact attending to discuss patient management. Residents were the “one and only doctor.” I was also surprised to learn that residents and medical students put in the IV lines and drew blood from patients; nurses were not trained on these procedures.

I was thrilled to be given full responsibilities and autonomy. For each assigned patient, I was expected to conduct all procedures and order medications, all unsupervised. I administered more IV lines, arterial sticks and LPs in one month than I did in the entire 2nd year of residency!

I also appreciated the way that Cape Town physicians focused more on clinical signs and judgment rather than just the workup. I believe this is not well enforced in residency programs in the States. CT scans and MRIs were available, but not 24-7; they were only used for patients who really needed them. Labs were not routinely done, unless there was a clinical indication. Every decision was based on how the child looked and how the disease progressed. “We treat the patient not the paper,” my mentor told me. I strongly believe that clinical skills are in decline in western medicine and that lab work and imaging modalities are routinely overused.

continued on next page
Resident Voice continued

This experience taught me so much, not only about medicine, but also about life. Despite living a life full of hardships, humble and underprivileged families were rarely seen without a smile on their faces. They never complain; instead, they live life to the max & were always grateful for every little thing. I was deeply inspired by their relentless will to survive. I learned how to adapt to a new environment, work with limited resources and appreciate everything I have. I loved every second of it.

I left South Africa with a newfound passion; one I had never considered: Global Child Health. I returned to my residency program with feelings of joy, and excited to share my experience with colleagues. I then decided to apply for pediatric global health fellowships as this is what I had discovered would make me the happiest.

Resident autonomy is an important milestone, necessary as residents prepare for graduation and independent practice. Supervision is ubiquitous in US residency-training programs, and while this has a clear purpose, it also has its drawbacks. During my rotation in Cape Town, I experienced autonomy in my patient care, which was exhilarating. Most of the time, It is just you and your patient, so that it felt as though I was an attending. Everything you say, the patient and the nurses take it to heart. Having this feeling that there is no one supervising you was indeed a new experience for me; frightening at the beginning, but I used it as motivation to be very thorough with my patients. I was determined to provide them with my absolute best. This greatly improved my confidence, clinical and judgmental skills, and it reflected back on my work when I returned to the States to resume my training. I felt that supervision was no longer necessary for my general pediatrics admissions.

I believe all residents should have a global health experience as a part of their training; it is absolutely life changing. They will experience an entirely different aspect of medicine and healthcare systems. It will widen their knowledge, improve their clinical and procedural skills and most importantly, it will help alleviate the suffering of the underserved. Ideally, this experience would be a core component of all residency programs.

We live in a world where there is a continually widening gap between the rich and the poor, those who have access to quality, affordable healthcare and those who do not. Witnessing this inequality firsthand is enormously awakening. It is unacceptable to take our world as it is without striving to make a difference. We need enthusiastic residents and physicians who are not just content to pursue their own dreams, but are also willing to help others in need who are pursuing theirs. I think all residency program directors should encourage their residents to rotate in developing countries and share their experiences, so when they graduate, they go out to the world, apply their hard-won knowledge and pursue miracles.

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b. Kerion

A Kerion is an abscess caused by an immune response to a fungal infection of the scalp. The abscess is usually sterile. The presentation is one of boggy swellings of the scalp, it may be associated with pain, posterior cervical nodes, low grade fevers.

The fungal infection can be acquired by contact with objects used by infected persons such as towels, sheets, combs or hair brushes.

The common fungal infections associated with kerion are:

- Microsporum canis
- Trichophytton tonsurans
- Trichophytton verrucosum
- Trichophytton mentagrophytes

Treatment of Kerion includes anti fungal treatment using Griseofulvin, terbanifine or itraconazole, prednisone for antiinflammatory properties, antibiotics for secondary infection coverage ketaconazole shampoo for scalp cleansing.
Ingestion of toxic substances is common in the pediatric population, with the highest percentage of ingestions occurring in the ≤ 5yrs age group (47.7 % of all exposures), based on the 2014 annual report of the American Association of Poison Control Centers. Some children will present with symptoms such as drooling, chest or abdominal pain, feeding difficulties, or respiratory distress, but many others may be asymptomatic, coming to attention because of a witnessed ingestion. General advice for all ingestions is to avoid giving the child anything to eat or drink until they have been evaluated, and not to induce vomiting as this may cause further damage depending upon the type of ingestion. This review will cover three commonly encountered ingestions: magnets, button batteries, and coins.

**Rare Earth Magnets**

Rarely have pediatric ingestions received as much media attention as has high-powered, rare earth magnets (or neodymium magnets). These magnets differ from the average magnet in that they are extremely strong, (with a popular manufacturer describing them as “30 times more powerful than the average refrigerator magnet”), very small (5mm), sold in sets of 100 or more (Figure 1) and marketed as “adult desk toys”. These small shiny balls, sold under names such as “BuckyBalls,” “Zen Magnets,” and “Neocube”, are attractive to toddlers and small children and because there are so many in a set, it is understandable how some can be easily misplaced or lost. Accidental ingestion has also occurred among teenagers and older children who have used them inside the mouth to mimic facial piercings.

The main risk of ingestion lies in the potential for development of intestinal ischemia, necrosis, and perforation (Figure 2 next page) as well as enteroenteric fistula formation between loops of bowel. Unfortunately, initial symptoms such as abdominal pain or vomiting are non-specific. Coupled with a lack of recognition of the danger posed by rare earth magnet ingestion, this may lead to catastrophic consequences, including short bowel syndrome and death. A recent survey by the North American Society of Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN) found that 15% of ingestions were managed with observation only and of the 28% that required surgery, 63% needed repair of a perforation or bowel resection.

Secondary to the advocacy action of NASPGHAN, the American Academy of Pediatrics (AAP), U.S. Public Interest Research Group, and a number of other organizations, the Consumer Product Safety Commission (CPSC) issued a ruling in 2014 to protect children by limiting the strength of small magnets that could be swallowed or inhaled to a flux index of 50 kG2 mm2, effectively banning the product in the US. However in November of 2016, the U.S. Court of Appeals of the Tenth Circuit overturned this ruling in the case of Zen Magnets v. Consumer Product Safety Commission (No. 14-9610) and they are again available for sale.

Under ideal circumstances, management of these ingestions begins with prevention. NASPGHAN created an educational handout for parents that can be easily printed and distributed in primary care offices and ER waiting rooms, along with a more in-depth fact sheet. Patients with reported ingestions or unexplained GI symptoms with rare earth magnets in the environment should have an immediate abdominal x-ray and, if magnets are present, a lateral x-ray as well. Because multiple magnets may be tightly adhered to each other—at first appearing as a single object on initial imaging—a high index of suspicion for multiple magnet ingestion needs to be maintained as the emergent management differs depending upon the number of magnets ingested. Single magnet ingestions may be followed with serial x-rays to ensure progression along with guidance to avoid clothes with metallic buttons or belts with buckles. Consultation with a pediatric gastroenterologist is also indicated early on. If multiple magnets are present, emergent endoscopic removal is indicated, even if the patient is asymptomatic. In cases where the location is not amenable to endoscopic removal (beyond the duodenum), consultations with pediatric GI and pediatric surgery are indicated. Surgical removal may be needed for cases in which the magnets do not progress through the GI tract or if the patient becomes symptomatic at any point. An excellent management algorithm is available in the recently published Management of Foreign Body Guidelines.

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Management of Ingested Foreign Bodies: Review and Update

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Asst. Prof of Pediatrics
Sydney Kimmel Medical College-Thomas Jefferson University

Figure 1

![Image of magnets](image-url)
Management

Management starts with a high index of suspicion in a child with unexplained chest pain or drooling. This can be confirmed with a chest x-ray and careful attention to look for a double halo sign on anteroposterior views as batteries have been confused with coins and the resulting delay in action can have catastrophic consequences. Esophageal button batteries require emergent endoscopic removal with consideration of surgical backup even if the patient is asymptomatic. Damage to the esophagus may continue days to weeks later, with a case report of an aortoenteric fistula presenting 19 days after battery removal. For this reason, if a child presents with hematemesis and has a history of a battery ingestion, emergent cardiothoracic surgical evaluation is needed. Batteries in the stomach or beyond in a larger asymptomatic child (>5 years) or smaller batteries <20mm beyond the esophagus may be observed without endoscopic removal. However, in a small child with a battery ≥ 20mm, endoscopic evaluation should be considered as esophageal injury may have occurred as the battery passed through to the stomach.

A simple “rule” for parents is to be especially cautious with any product that contains a button battery the size of a penny or larger (see figure 3 for comparison to a quarter). The battery ingestion hotline established by the Poison Control Center for parents and healthcare providers is (202) 625-3333. The Australian based website "thebatterycontrolled.com.au" also contains an educational video and parent handouts.

About 8 months ago, I received one of the “dreaded” calls as a pediatric gastroenterologist. The ER called to report that a two-year old who had ingested multiple small round magnets had just been admitted. The initial radiograph revealed two metallic foreign bodies in the esophagus and a string of twelve in the stomach. An operating room team was quickly assembled and the race to the operating room was on. The team included pediatric gastroenterology, pediatric surgery, and pediatric anesthesia. Further review of the films showed the two magnets appearing in the oral pharyngeal cavity. Once the patient was sedated, two magnets were removed from her vallecula by pediatric anesthesia with Magill forceps. Upper endoscopy then revealed the string of twelve magnets cascading from the first into the second portion of the duodenum, which was removed with endoscopy forceps and a Roth net. Fortunately, we successfully removed the magnets from the patient prior to any magnet-induced injury to the gastrointestinal tract.

**Button Batteries**

Button batteries are another foreign body that can cause life-threatening injury in a short time when they become lodged in the esophagus. In the past twenty years, the shift towards larger lithium batteries (>20mm) has resulted in an increase in injuries including esophageal perforation or strictures, tracheoesophageal or aortoenteric fistula, mediastinitis, and pneumothorax. These batteries are ubiquitous, found in items such as remote controls, toys, digital thermometers, and flameless candles. Animal data has shown that esophageal necrosis can start within 15 minutes and extend through all layers by 30 minutes.

**Figure 2**

- Esophagus
- Second magnet swallowed
- Magnet in small intestine
- Magnet in stomach
- Magnet in small intestine, causing damage

**Figure 3**

- Panasonic CR2025 3V
- Made in Malaysia
- A simple “rule” for parents is to be especially cautious with any product that contains a button battery the size of a penny or larger (see figure 3 for comparison to a quarter). The battery ingestion hotline established by the Poison Control Center for parents and healthcare providers is (202) 625-3333. The Australian based website “thebatterycontrolled.com.au” also contains an educational video and parent handouts.
**Coin Ingestion**

Coin ingestion is the most benign and common of these three type of ingestions. The size of the coin (>23.5mm) and age of the child dictate whether a coin will become impacted in the esophagus. The position of the coin is also important, as distal esophageal coins pass 60% of the time without endoscopic removal and asymptomatic patients with gastric coins may be monitored for 2-4 weeks with an x-ray every 1-2 weeks. A patient with a known coin ingestion should always have a radiograph. There is an important clinical pearl in distinguishing an esophageal versus tracheal positioned coin on chest radiograph as coins in the esophagus project en face (round) in the frontal projection whereas those in the trachea project on end in the frontal projection. If a patient is symptomatic with respiratory compromise, drooling, or pain in the presence of an esophageal coin, emergent removal is indicated. In the asymptomatic patient, esophageal coins should be removed within 12–24 hours.

In order to better serve the public, ingestions of all item such as magnets and lithium batteries should continue to be reported to the CPSC.7

**References and Resources:**

Honoring our Local Legend
Charles Dadzie, M.D.

Founding Father of Pediatric Intensive Care
As a founding father of what is now K. Hovnanian Children’s Hospital at Jersey Shore University Medical Center, Charles Dadzie, M.D. has dedicated his career and life to helping the sickest children in our region. After graduating from medical school in Ghana, and working for Ghana Government Hospitals, Dr. Dadzie accepted an invitation to complete his postgraduate work in pediatrics in New York City. In 1982, while he was a senior fellow at the Children’s Hospital in Newark, he was invited to Jersey Shore University Medical Center to deliver a speech about respiratory failure in children. The Jersey Shore leadership team was so impressed, they then recruited Dr. Dadzie knowing he would provide exceptional care to our community. He joined the team in 1983 and has since become a local legend in pediatrics with three board certifications in Pediatrics, Pediatric Pulmonology, and Pediatric Critical Care.

Dr. Dadzie created the team approach to providing intensive care at the children’s hospital. Through collaboration, pediatric intensive care physicians partner with patients and their families to build a team of specialists to ensure the best possible outcomes. They encourage families to take an active role in the treatment and care of their loved one, from being present during the physicians’ rounds to providing emotional support to their little ones while in the intensive care unit. Together they work to achieve the same goal - to provide each child with the best care needed for a return to good health.

Help us Honor a Legend
The community and team at K. Hovnanian Children’s Hospital are conducting a fundraising campaign to commemorate Dr. Charles Dadzie for his years of dedication to the children in our community. Our goal is to raise enough funds to name an area in the Pediatric Intensive Care Unit (PICU) after Dr. Dadzie. We hope to proudly display this meaningful recognition in the PICU where he makes an enormous impact caring for our children each day.

It’s our turn to give the gift of gratitude — donate today!
When you make your gift in honor of Dr. Dadzie, you will be supporting the life-saving work being done every day in our Pediatric Intensive Care Unit. Without mentioning your gift amount, Dr. Dadzie will receive a letter stating you made a donation in his honor.

I am truly humbled to be honored through this campaign. The recognition is dedicated to all caregivers who believe our children are our future and that we must care for each child as our own.

—Dr. Charles Dadzie

Make a gift in honor of Charles Dadzie, M.D.!

Contact the Foundation office:
Jaclyn Lang, Development Officer
1345 Campus Parkway, Suite A2, Neptune, NJ 07753
Phone: 732.751.5134 | Fax: 732.751.5120
Email: jaclyn.lang@hackensackmeridian.org

Grateful Patient Family
We are honored to be a part of this fundraising campaign for Dr. Dadzie. It is a privilege to give back to not only a wonderful and well-deserving physician, but a true member of our family.

—Tara Fiore,
Grateful Patient Family
On February 6, 2017, Governor Christie signed into law Senate bill 2156, now known as P.L. 2017, Chapter 8, which became effective immediately upon signature. This statute requires all health care professionals authorized to issue a prescription for an opioid drug (which is a Schedule II controlled dangerous substance), to discuss with a patient the risks of developing a physical or psychological dependence on the opioid drug. If the prescriber feels it is appropriate, alternative treatments may be discussed. All prescribers must include a note in the patient’s chart indicating that the discussion took place.

In addition, on February 15, 2017, Governor Christie signed S3, now known as P.L. 2017, Chapter 28, which becomes effective May 6, 2017. This statute imposes certain restrictions on how opioids may be prescribed, including, in cases of acute pain, prohibiting a practitioner from issuing an initial prescription for an opioid drug in a quantity exceeding a five-day supply, and requiring the prescription to be for the lowest effective dose of an immediate-releasing opioid drug.

Regulations have been proposed providing that prior to issuing the first prescription for a Schedule II controlled dangerous substance for pain or any opioid drug, a practitioner shall discuss with the patient the reasons why the medication is being prescribed, possible alternative treatments, and the risks associated with the medication. With respect to opioid drugs, the discussion shall include the risks of addiction, physical or psychological dependence, and overdose associated with opioid drugs and the danger of taking opioid drugs with alcohol, benzodiazepines and other central nervous system depressants, and requirements for proper storage and disposal. The practitioner shall have this discussion prior to the issuance of each subsequent prescription for any opioid drug which is a Schedule II controlled dangerous substance. In addition, the practitioner shall reiterate the discussion prior to issuing the third prescription of the course of treatment. The practitioner shall include a note in the patient record that the required discussions took place.

Lastly, the regulations provide that, no less than four days after issuing the initial prescription, upon request of the patient, a practitioner may issue a subsequent prescription for an opioid drug for the continued treatment of acute pain associated with the condition that necessitated the initial prescription provided the following conditions are met: the practitioner consults (in person, via telephone, or other means of direct communication) with the patient; after the consultation with the patient, the practitioner, in the exercise of professional judgment, determines that an additional days’ supply of the prescribed opioid drug is necessary and appropriate to the patient’s treatment needs and does not present an undue risk of abuse, addiction, or diversion; the practitioner documents the rationale for the authorization in the patient record; The subsequent prescription for an additional days’ supply of the prescribed opioid drug is tailored to the patient’s expected need at the stage of recovery. Any subsequent prescription for an additional days’ supply shall not exceed a 30-day supply, unless certain criteria are met.

The Governor also recently signed S1830/A3411, now known as P.L.2017, c.7, which requires that Department of Health (DOH) regulations regarding testing for, and responses to, elevated blood lead levels in children are to be consistent with the most recent recommendations of the Centers for Disease Control and Prevention (CDC). This law further requires DOH, within 30 days after the bill’s date of enactment and on at least a biennial basis thereafter, to review and revise its rules and regulations to ensure that they comport with the latest CDC guidance. DOH must promulgate regulations concerning the responsive action to be taken when a child’s blood lead level tests above the CDC benchmark, including performing environmental follow-up, providing notice to the child’s family, performing additional screening of family members, providing case management services, and providing medical treatment, such as chelation therapy. In addition, the current DOH public information campaign on lead screening must: (1) highlight the importance of lead screening and encourage parents to have their children screened for lead poisoning at regular intervals; and (2) provide for the widespread dissemination of information to parents and health care providers on the dangers of lead poisoning, the factors that contribute to lead poisoning, the recommended ages at which children should be tested for lead poisoning, and the elevated blood lead levels that will necessitate responsive action. Finally, DOH will be required to revise and reissue the information disseminated through the public information campaign within 30 days of making revisions to its blood lead regulations to remain consistent with current federal recommendations.

Finally, on February 28, 2017 Governor Christie proposed his Fiscal Year 2018 budget. The Governor’s proposal includes $5 million in funding for the statewide expansion of the mental health collaborative which had been operating as a pilot program to address pediatric behavioral health issues. This successful program provides a collaboration of primary care physicians and mental health specialists aimed at improving the ability of primary care physicians to screen, care manage, and increase access to mental health services for children with behavioral health and substance abuse issues. The Governor’s budget also includes an additional $10 million appropriation to the DOH for lead testing.

The Legislature must adopt and the Governor must sign the state budget by July 1, 2017, a challenge made more difficult by the uncertainty of federal efforts to repeal the Affordable Care Act and by proposed cuts in the federal budget unveiled last week by President Trump.
Protect your child from lead exposure. Know the sources of lead contamination:

- **Lead based paint**
  If your house was built before 1978

- **Imported goods**
  Some imported goods such as toys, cosmetics, candy, and spices

- **Herbal remedies**
  Some herbal remedies and folk medicines

- **Leaded pipes**
  Old water pipes with lead

- **Ceramic pottery**
  Lead has long been used in ceramic ware in glazes

Get your child tested at ages 1 & 2, and get the facts at [nj.gov/health/childhoodlead](http://nj.gov/health/childhoodlead) or follow #kNOWLEAD
New Jersey Rises to Top 20 for School Breakfast

New Jersey is now ranked 19th nationally for school breakfast, giving more low-income students a healthy morning meal. Previously, the state ranked 23rd last year, and 46th in 2011, for student participation in this critical child nutrition program. School breakfast provides children with one-fourth of the Recommended Daily Value of protein, calcium, iron, and vitamins A and C. Beginning the school day with nutritious foods including dairy, whole grains, and fruits enables children to concentrate and learn.

Food Research and Action Center reports New Jersey’s participation rate jumped 6 percent from the 2014-2015 to 2015-2016 school years. This surpasses the average national increase of 3.7 percent. The 19th placement is credited to more schools serving breakfast “after the bell” during the first few minutes of the day. The Breakfast After the Bell program, typically done in the classroom, significantly boosts participation by giving all kids a chance at a nutritious start to the school day with a healthy morning meal. A healthy breakfast gives students the nutrition they need to concentrate, helping them focus in class, score higher on standardized tests and avoid trips to the school nurse. For more health benefits of eating school breakfast, visit www.BreakfastEveryDay.org, or contact Stacey Jackson, MS, RDN, CDN via email at sjackson@milk4u.org or by calling 914-615-9286.

Pediatric Medical Home Programs for Preventing Child Abuse and Neglect

April is National Child Abuse and Neglect Prevention Month. In recognition of this important occasion, consider scheduling one of the free trainings below for your practice.

Suspected Child Abuse and Neglect (SCAN) is a 1.5 hour training that provides attendees with the critical information necessary for properly identifying and reporting cases of suspected child abuse and neglect in the pediatric office including; recognizing the signs of abuse and neglect, reporting child abuse according to NJ law, developing a protocol for handling suspected child abuse and neglect cases in the healthcare setting, aligning families with community-based, family strengthening resources and creating partnerships with CP&P and other state agencies.

Suspected Child Abuse and Neglect for Emergency Departments (SCAN ED). This 1.5-hour program expands the basic SCAN training to focus on the specific advantages and challenges to identifying abuse and neglect in a high pressure, fast paced emergency department setting. Training team includes a physician champion experienced in recognizing abuse and neglect in the ED setting.

Suspected Child Abuse and Neglect for First Responders (SCAN EMS). This 3-hour training explores the unique perspective and role Emergency Medical Services (EMS) can play in reducing and preventing child abuse and neglect. In addition to an experienced physician champion, SCAN for EMS includes an EMT experienced in identifying and reacting to instances of child abuse and neglect.

Suspected Child Abuse and Neglect for Early Intervention Professionals (SCAN EI). The 2-hour training provides early intervention professionals with detailed information on the major risk factors and triggers; national and state statistics; reporting requirements and prevention strategies and education that supports families. The training team for this program includes a former early intervention system representative.

Preventing Child Abuse and Neglect (PCAN). This webinar empowers health care providers to be better equipped to appropriately recognize, intervene and prevent child abuse and neglect. The 1-hour program increases healthcare providers’ understanding of the medical home as a systems change concept, details green, yellow and red light strategies for providing appropriate anticipatory guidance and prevention at well-child visits, informs and aligns practices with family-strengthening resources in the community, and fosters a closer partnership with CP&P.

Strengthening Pediatric Partners (SPP). This 6-month long, American Board of Pediatrics-approved MOC Part 4 project examines the strategies, approaches and resources utilized in the practice at the 2-month and 24-month well visit to reduce the occurrence of abuse and neglect, focusing specifically on the four global triggers of PPD, Crying, Discipline and Toilet Training. Upon completion, pediatricians earn 25 Part 4 points.

For additional information about each training or to learn how to become a Physician Champion, contact the CAN Team at (609) 842-0014 or send an e-mail to CAN@NJAAP.ORG.
Family Health Initiatives

Based on 2015 electronic birth certificate data, approximately 5.5% of women having a live birth in NJ report smoking during their pregnancy, about half the national average. In 2001, when New Jersey created its perinatal smoking cessation program, Moms Quit Connection (MQC), the rate was 19%. MQC was developed to provide free, individual cessation counseling, education and community outreach to pregnant women and mothers of children under seven.

A program of the Southern NJ Perinatal Cooperative and its subsidiary Family Health Initiatives funded through the NJ Department of Health, MQC initially targeted the seven southern counties of the state, where smoking rates were highest. In 2005, MQC initiated an evidence based, professional training program, ASK ADVISE and REFER, providing information about tobacco addiction, motivational interviewing and brief intervention counseling. As the decline in maternal smoking grew more pronounced in the southern region, the NJ Department of Health utilized CDC funding to expand MQC’s services statewide. The recent introduction of an automated referral system for any pregnant women who reports a current or prior smoking history has resulted in hundreds of women receiving support to quit smoking from her prenatal provider and MQC. Unfortunately, the problem does not end there.

Cathy Butler-Witt, Assistant Director of Public Health Programs states “with the advent of electronic referral, over 100 women a month are being referred to MQC. Many, however, say that they don’t need MQC because they already quit when finding out about the pregnancy. But there is a very real difference between STOPPING for your pregnancy and planning to QUIT for good, so we always encourage them to work with MQC on a relapse prevention plan.” Women whose partner smokes or who live in households with other smokers have the highest prevalence of smoking throughout pregnancy. Relapse is much more common when living which other smokers, and typically occurs between two and four months after delivery as the stress of a new baby challenges the mom’s reserve to remain smoke free. Ultimately, both mom and baby fall victim to the consequences of continued exposure to environmental tobacco smoke.

It is critical that maternal cessation efforts reach beyond pregnancy and beyond the mom, to include fathers, grandparents, relatives and others sharing the family environment. Family dynamics, along with tobacco addiction, are complex issues that pediatricians and other child health professionals typically have neither the time nor resources to address. New Jersey is one of the rare states that has a cessation program specifically for parents, to give young children the opportunity to grow up in a smoke free environmental. The critical link that binds maternal cessation professionals with child health clinicians is the interest in improving health outcomes for the child. Once a women delivers, her ongoing relationship with the prenatal provider ends, while a promising new relationship with her pediatrician begins. Thus pediatricians occupy a critical position for the delivery of timely, relapse prevention messages.

Clinicians are continually being asked to incorporate more information into the routine office visit. MQC’s recommends incorporating cessation messaging into typical new parent educational topics such as car seat safety, and environmental triggers for ear infections, colds and asthma. To support clinicians when discussing the negative impact of second and third hand smoke, MQC has created “Family Quit Tools”. These easily stored packets can be widely disseminated to any household in which someone smokes, reducing the potential for a parent who smokes to feel personally attacked by the clinician.

The “Family Quit Tools” packet includes infographics on second and third hand smoke and asthma, information on breastfeeding & smoking, dangers of electronic cigarette devices, Smoke-Free Zone door hangers, and details on MQC for Families and NJ Quitline social media sites, including online enrollment and program information. For clinicians, MQC offers free onsite or on-line ASK, ADVISE and REFER training with CEUS, referral materials, referral outcome reports, and promotional materials for office and on-line venues. Moms and Dads referred to MQC counseling are encouraged to include other family members also ready to quit, and to visit the MQC website and Facebook.

Bring the benefits of growing up in a tobacco-free environment to your patients, contact Cathy Butler-Witt at 856-675-6289 or cbutler@snjpc.org for more information about MQC for Families, Family Quit Tools, and MQC for Families Brief Intervention Training.
Ultrasound: Not Just Hocus POCUS

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When pediatricians think of ultrasound (US), the image that first comes to mind is that of a large machine used primarily by radiologists, cardiologists and obstetricians. However, ultrasound technology has greatly advanced, and machines have become smaller and more portable. General and pediatric emergency medicine physicians have embraced the use of bedside ultrasound, commonly termed point of care ultrasound (POCUS) during their routine care for patients.

Ultrasound’s use in medicine was first introduced in the 1950’s by Dr. Karl Theodore Dussik, who focused on brain structures after having learned that ultrasonic waves were used to detect schools of fishes and boats at sea. Obstetricians and cardiologists adopted the technology in the 1960’s. General emergency departments began using portable scanners in the 1980’s, when the American College of Emergency Physicians (ACEP) issued a resolution supporting the use of ultrasound in the emergency department in 1990. Point of care ultrasound uses a laptop sized—or smaller—portable ultrasound at the patient’s bedside for diagnostic and therapeutic purposes. POCUS is performed for a well-defined purpose: quickly answering a specific question with the goal of improving patient outcomes. POCUS is focused, goal-directed, has easily recognizable findings and is easily learned. It is quickly performed and completed at the bedside in real time, not in the radiology department. In essence, POCUS helps to expedite the physician’s clinical decision making, direct follow up imaging, aid in procedural guidance and improve patient satisfaction.

There are numerous studies demonstrating the accuracy of POCUS by PEM physicians, who after undergoing adequate training, have demonstrated their proficiency in its use. The literature and American Academy of Pediatrics (AAP) supports the use of POCUS and recognizes its ability to accurately diagnose time-sensitive and common emergency department conditions. POCUS will decrease length of stay, minimize radiation exposure and reduce complications. In 2015, the AAP issued a policy statement supporting the use of POCUS in the pediatric emergency department, highlighting the importance of pediatric specific ultrasound training.

Pediatric emergency medicine physicians tend to focus on specific pediatric applications and training (hypertrophic pyloric stenosis, intussusception and common pediatric fractures) in addition to the more traditional uses (procedural vascular access, nerve blocks, trauma, cardiovascular, pelvic, soft tissue, musculoskeletal, thoracic, abdominal, bladder, renal, biliary and ocular examinations).

Infantile vomiting is a common reason for emergency room visits. Parents may describe projectile vomiting. A physician may not be able to appreciate an olive-shaped mass or peristaltic wave on exam. Hypertrophic pyloric stenosis is an important surgical differential diagnosis that should be excluded. In 2013, a prospective observational study showed that pediatric emergency physicians can accurately assess the pylorus with US in the evaluation of suspected hypertrophic pyloric stenosis with a sensitivity and specificity of 100%.

Colicky abdominal pain is another common reason young children present to the emergency department. Rarely, physicians may palpate a sausage-shaped abdominal mass, or the child may have developed a currant jelly stool, however, these findings may not always be present. US is the preferred method of diagnosis for intussusception in the majority of institutions. POCUS technique for intussusception is relatively easy and can be taught quickly with a sensitivity and specificity of 96.6% to 100% and 88% to 100%, respectively. There is a published case report of a novice pediatric resident ultrasonographer diagnosing intussusception in the pediatric emergency department.

Patients and parents preferred POCUS over traditional radiography as a modality to diagnosis suspected forearm fractures. US can be a potential imaging modality replacing the traditional radiographs for buckle fractures, clavicle fractures, toddler’s fracture and low risk operative fractures.

Procedural POCUS can be utilized to identify vasculature for intravenous catheter placement, guide abscess incision and drainage, ensure appropriate bladder volume prior to catheterization, guide nerve blocks, arthrocentesis, thoracocentesis and paracentesis when indicated. Pediatric POCUS can also be used to identify soft tissue collections, soft tissue foreign bodies, intrauterine pregnancies, peritoneal fluid, pericardial effusion, cardiac stand still, cardiac function, inferior vena cava volume status to aid in hydration management, pleural fluid, lung consolidations, pneumothorax, cholelithiasis, cholecystitis and hydronephrosis.

POCUS is a critical tool used to help physicians obtain information quickly in a real time setting without exposing patients to pain, complications of sedation or radiation. In the upcoming years, higher quality, low cost, smaller (handheld) ultrasound units in conjunction with innovative training techniques will create opportunities where ultrasound can be used in all areas of medicine, including the pediatric outpatient setting.

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References

Brief: Pediatric Telemedicine Poised to Reach Communities in New Jersey

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Abstract: Telemedicine is an innovative technology that is starting to become ubiquitous throughout the country in various forms. In the article, the author discusses some of the definitions, technological advances, and legislative actions that make this form of medicine possible. In addition, he discusses a new telepediatric emergency medicine program starting in New Jersey in 2017.

Keywords: Telemedicine, Telepediatrics, Telehealth, Pediatric Emergency Medicine

The seven year old girl stared at the machine as her emergency department physician wheeled the device into her room. "We are ready to get that pediatric specialist on the line now," the doctor said, as he positioned the device along side the little girl's bed. It had a large black screen that looked like a TV on the end of a long pole. After a few moments the screen flashed on and there was an image of a man wearing a white coat and a Sponge Bob tie. The doctor on the screen said "Hello" and asked the girl's parents and the ER physician several questions. Afterwards, he made the camera move to take a 'good look' at her rash, eyes and mouth. The ER doctor pushed on her belly as the man on the screen watched. He then asked the girl, "Did you know I can hear your heart and lungs from all the way over here?" As she shook her head, her ER doctor placed a small stethoscope that was on the machine onto her chest wall. The TV doctor pushed a button and the lub-dub sound of her own heart flowed through the speakers, making her laugh. The same thing happened when the TV doctor wanted to look in her ears with another device hooked into the television screen. After it was all done, the doctor on the screen smiled and said to everyone in the room: "I can see why your case is a little complex, but I think everything is going to be ok."

Not too long ago, a story like this would be found within a science fiction story. However, within recent years, technology has advanced to a point where we can easily bring professional eyes and ears to the patient bedside from anywhere in the world. This trend in remote evaluation and treatment is referred to as “Telemedicine.”

Technically, telemedicine is not a brand new practice. By definition, telemedicine (a.k.a. Tele-health or E-health) is the use of telecommunications technology to remotely evaluate, diagnose and/or treat patients. Different organizations (WHO, Medicare) have variations of this definition, but all share the same spirit of technological communication at a distance for medical needs. By that standard, one of the first uses of telemedicine was in 1905–1906 when Willem Einthoven, a professor of physiology at the University of Leiden in the Netherlands, first used telephone lines to send an early version of an ECG from the hospital to his office 1.5km away. As technology has advanced from that era, so have our uses of telemedicine. In fact, every time a physician picks up the phone and talks to a specialist for advice we are practicing telemedicine.

In the modern era, radiologists were among the first to adopt remote evaluation technology. With the advent of digital imaging, physicians have been able to remotely view all forms of imaging diagnostics from a computer located in either the radiology department, the reading room, the call room, their living room, or even a room located on the opposite side of the globe. This has allowed for on-call services to be offered by radiologists at all hours without having to keep someone present in the hospital.

Tele-Neurology and Tele-Psychiatry have been more recent mainstream advances that have allowed hospitals to obtain time sensitive evaluations. When a patient presents to a primary stroke center, most locations require an evaluation by a neurologist prior to intervening with Tissue Plasminogen Activator (TPA) or other fibrinolytic therapy. By using two-way video communication devices, an on-call neurologist can remotely examine a patient and their scans within minutes as opposed to having to drive in. Similarly, in a world where there are not enough practitioners for the amount of mental health issues in our communities, a psychiatrist is able to remotely interview patients by two-way video. They can see the affect and true mood of their patients and make appropriate recommendations for medicines or commitment.

Now, this powerful tool is starting to break ground in the form of another specialty: Pediatrics.

A new telemedicine initiative in pediatrics is about to start in New Jersey in early 2017. This program will involve using a two-way communication device so that Pediatric Emergency Medicine experts can offer consults to their adult counterparts at other facilities. As in the above vignette the remote physician will be able to “beam in,” discuss the history with the family, examine the patient with the help of the local practitioner, and directly view lab results and radiology studies. The technology even allows for remote auscultation and direct oto/ophthalmoscopic views.

The goal of the program is to provide the best and most appropriate care for children of New Jersey. In concert with the community ER physician and family, the pediatric consult will be able to advise on further diagnostic testing, treatment, and can help determine whether a transfer to a children's hospital is truly required or if a patient can be managed as an outpatient. It can also be readily utilized as a “second opinion” for families who may want a second set of eyes on their child without the need for a costly and unnecessary transfer.

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Currently, the only legal parameters in New Jersey state that the physician must be licensed in the state where the patient is physically being treated. Thus far, this has been the national trend. However, in 2011 CMS set forth guidelines through the federal register to make physician credentialing easier. In this guideline, hospitals that desire telemedicine services from another “distant” hospital group can form a written agreement to use the credentialing services of that site, provided that the “distant” site is Joint Commission Certified.

The New Jersey legislature is also in the process of ironing out rules for the delivery of telemedicine and reimbursement for services. Currently S291 is a bill that is receiving a great deal of support in the state senate. If passed and signed by the governor, all telemedicine services should be paid at the exact rate of a live, in-person consultation/service.

Throughout 2017, the program will begin to test the waters of NJ pediatrics. As the year progresses, we anticipate expanded usage by pediatricians and other partners. In addition, as the pediatric telemedicine initiative grows, it may become possible to add more pediatric subspecialties (pediatric endocrinology, cardiology, neurology, surgery, etc.) as consultants.

Hopefully, with this new comprehensive network of pediatric expertise in place, help and advice for our patients and families can now be only a push of a button away.

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   Reduces incidence of tardiness\(^3\), nurse visits\(^3\) and absenteeism\(^3\)

5. BETTER BEHAVIOR
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